

REMARKS

This application has been reviewed in light of the Office Action dated April 12, 2005. Claims 41, 42, 49, 51, and 55-58 are presented for examination, of which Claims 41, 51, 55, and 57 are in independent form. Claims 43, 50, and 52-54 have been cancelled, without prejudice or disclaimer of the subject matter presented therein, and new Claims 55-58 have been added to provide Applicants with a more complete scope of protection. Claims 41, 42, 49, and 51 have been amended to define Applicant's invention more clearly. Favorable reconsideration is requested.

The Office Action states that Claims 41-43 and 49-54 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, and are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 43, 50, and 52-54 have been canceled, thus rendering their rejections moot. Applicant respectfully submits that independent Claims 41 and 51, the claims dependent therefrom, as well as newly added Claims 55-58 fully comply with the requirements of the first and second paragraphs of 35 U.S.C. § 112 for at least the reasons presented below.

Independent Claims 41 and 51 are directed to, respectively, a gradation conversion method and a storage medium storing a computer-readable program used to execute the gradation conversion method. The method is set forth, at least in part, in the sixth embodiment as described in the specification starting at page 44, line 15, *et seq.* The method includes the steps of:

- (i) extracting an object area from the radiation image data;

(ii) calculating added pixel values for each y-coordinate by scanning to add pixel values in the object area in an x-direction;

(iii) calculating average pixel values for the y-coordinates, respectively, by dividing the added pixel values for the y-coordinate by a number of pixels corresponding to the added pixel values;

(iv) determining a maximum value among the average pixel values for the y-coordinates, respectively; and

(v) converting a radiation value of the radiation image data by using a gradation conversion curve defined based on the maximum value.

In regard to element (i), support for this element may be found in the specification at, for example, page 45, line 9, to page 46, line 3.

In regard to elements (ii) and (iii), support for these elements may be found in the specification at, for example, page 46, lines 10-16, and, in particular, equations 55 and 56.

In regard to element (iv), support for this element may be found in the specification at, for example, page 46, lines 17-25.

In regard to element (v), support for this element may be found in the specification at, for example, page 47, lines 1-7.

With respect to Claim 42, support for this claim may be found in the specification at, for example, page 45, lines 1-15.

With respect to Claim 49, support for this claim may be found in the specification at, for example, page 43, lines 17-26.

Accordingly, Applicant submits that independent Claims 41 and 51, the claims dependent therefrom, fully comply with the requirements of the first and second paragraphs of 35 U.S.C. § 112, and therefore respectfully request withdrawal of the rejections of those claims.

New independent Claims 55 and 57 are directed to, respectively, a gradation conversion method and a storage medium storing a computer-readable program used to execute the gradation conversion method. The method is set forth, at least in part, in the seventh embodiment as described in the specification starting at page 48, line 8, *et seq.* The method includes the steps of:

- (i) extracting an object area from the radiation image data;
- (ii) calculating added pixel values for each y-coordinate by scanning to add pixel values in the object area in an x-direction;
- (iii) calculating average pixel values for the y-coordinates, respectively, by dividing the added pixel values for the y-coordinate by a number of pixels corresponding to the added pixel values;
- (iv) determining a maximum value among the average pixel values for the y-coordinates, respectively;
- (v) determining an x-coordinate showing an area of the cervical vertebra by using pixel values of pixels where an average pixel value at a y-coordinate of the pixels is a maximum value;
- (vi) calculating a statistic from an area determined by the x- and y-coordinates; and

(vii) converting a radiation value of the radiation image data by using a gradation conversion curve defined based on the statistic.

In regard to elements (i), (ii), (iii), and (iv), please refer to the discussion above in connection with Claim 41.

In regard to element (v), support for this element may be found in the specification at, for example, page 48, line 23, to page 49, line 6.

In regard to element (vi), support for this element may be found in the specification at, for example, page 49, lines 13-24.

In regard to element (vii), support for this element may be found in the specification at, for example, page 49, line 24, to page 50, line 2.

With respect to new Claims 56 and 58, support for these claims may be found in the specification at, for example, page 49, lines 13-24.

This Amendment After Final Action is believed clearly to place the present application in condition for allowance. Therefore, entry of this Amendment under 37 C.F.R. § 1.116 is believed proper and is respectfully requested, as an earnest effort to advance prosecution and reduce the number of issues. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

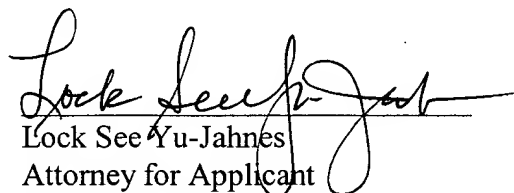
In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

No petition to extend the time for response to the Office Action is deemed necessary for the this Amendment. If, however, such a petition is required to make this

Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


Lock See Yu-Jahnes
Attorney for Applicant
Registration No. 38,667

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 511595v1